

**North Umpqua Hydroelectric Project
(FERC No. P-1927)****Resource Coordination Committee (RCC)
January 19, 2022 Meeting Summary****FINAL 4/8/2022**RCC Members or Alternates Present

Steve Albertelli (PacifiCorp)
Rich Grost (PacifiCorp)
Pam Sichting (USDA-FS)
Amy Golladay (USDI-BLM)
Mike Korn (USDI-BLM)
Logan Negherbon (NOAA Fisheries)
Jason Brandt (ODFW)
Chris Stine (ODEQ)
Craig Kohanek (OWRD)

Other Attendees

Beth Bendickson (PacifiCorp)
Scott Schevenius (PacifiCorp)
Jeffrey Brown (PacifiCorp)
Pete Sukraw (PacifiCorp)

RCC Members Absent

Frank Weaver (USFWS) – Proxy to ODFW

INTRODUCTIONS, AGENDA, OLD BUSINESSIntroductions/Member Updates/Organization News

USDA-FS: Sherry Chambers (District Ranger) retired. David Anderson will start in February as the new North Zone Ranger. He comes from the Inyo National Forest (NF) where he is the District Ranger. He has 20 years of federal service. Previously he was a Forest Safety Manager for the Inyo NF and prior to that was on Fire Staff for 14 years on the Siuslaw NF. In the meantime, Ron McMullin is the acting North Zone Ranger. Summer Cross, North Zone Wildlife, is on a detail to USFWS filling in behind retired Scott Center in the consultation arena. Luis Palacios, assistant Forest roads engineer, is on a 120-day detail to Northern California. If there are any roads questions, contact Pam.

NOAA: Tere O'Rourke took early retirement at the end of November. The Oregon Coast office is depleted, and there will be no temporary backfill of her position. They are operating in a restructure format and have been subsumed by the Willamette office. Chuck Wheeler took a position with the Hawaii office.

BLM: There have been retirements. One being a fish biologist in the district. Steve Clark also left. Jeff McEnroe is carrying a heavy load in addition to Swiftwater Field Office fisheries. A soil scientist moved to the Forest Service. There is currently only one NEPA planner. They are actively recruiting for positions.

ODEQ: The hydro side remains unchanged. Ari Sindel, who started this week, is the new DEQ 401 dredge and fill staff for Nationwide Permits. Haley Teach (former Nationwide Permit 401 coordinator) was promoted to 401 Program Manager but will be on leave starting in March.

With all the staff turnover, they are treading water pretty well. The hope is to keep the ship sailing. The agency-wide online system “Your DEQ Online” can now accept credit card payments for applications, pumped storage, etc. Contractors are linked to owners. The group discussed some of the challenges in navigating the system and submitting permit application materials. Chris said if a particular kind of permit is needed that requires multiple authorizations, the new system allows multiple people to work on them rather than each person having to work on them at individual desks. Chris welcomes input by phone or email if folks are having any issues.

Justin Green, the top DEQ water quality administrator left the agency at the end of December 2021. The position was filled by Jennifer Wigal, assistant water quality administrator. It was a lateral transfer.

ODFW: Kregg Smith took a new position, which originally was just a rotation, but now is a permanent position. John Zauner (NW hydro coordinator) from ODFW Clackamas, Jason’s counterpart, has been working in rotation in Kregg’s old position as the hydro program coordinator. He is very knowledgeable with ODFW permitting, knows people in the hydro world, and hopefully will continue in the position. The hope is the position will be permanently filled soon. The water program should be as it was at the last meeting. They lost their NE hydro coordinator.

OWRD: At the start of the pandemic, the initial thought was that there would be cuts. Craig has been there for 27 years and there has been a staff of 140. With the new administration, they’ve added over 40 people. To help address the growing pains, the previous lead deputy director and Raquel Rancier are splitting duties between her and Doug Woodcock. Water Planning and Investments is headed up by Kim Ogren. They are adding seven to eight higher positions in that section alone. They are also adding five people in the Salem office, along with a manager to address illegal marijuana growing concerns that are affecting people’s water rights. They also have five new watermasters.

Mary Grainey is semi-retired and working about 20 percent of the time. She will fully retire in June 2022. Her position will then be refilled.

There are no new positions in hydropower. One of the positions being filled is Craig’s former position as the agency Oregon Administrative Rule’s Division 33 and Division 77 instream water rights expert. Once that position is filled, he can work 100% on hydropower.

PacifiCorp: Joshua Moos is the new maintenance manager. He comes from the nuclear industry.

PUBLIC OUTREACH

Rich said COVID restrictions and infections were still affecting in-person opportunities. For instance, Diamond Lake Lodge is pausing most of its indoor services for 10 days due to an extensive COVID outbreak amongst staff. Similarly, the Umpqua Fish Enhancement Derby has cancelled its annual banquet, but are still holding the outdoor events such as the fishing tournament and student education day.

Amy suggested doing some sportsman events. Rich said PacifiCorp does occasionally set up a booth to support the recruitment of students and other groups of people into STEM disciplines, and to let folks know about the wide range of careers available in the hydro world (like fish biologists, etc.). However, many of those events have been altered recently due to COVID restrictions. They are still holding fishing derbies and other events, but the banquet parts are cancelled. Some events are getting customized to respond to COVID concerns.

As for events at the hydropower project, Rich said there is a tentative plan to host the Oregon fish passage task force meeting May 20-21, 2022 (at their request). The April RCC meeting would typically be an in-person meeting at the hydro project, but given what we know now, it may remain in the same online format via MS Teams. Whenever we have another opportunity to meet in the field, we will let everyone know.

Craig mentioned perhaps taking the historic video from early RCC implementation (before) and coupling it with what's happening now (after) and put it on local community TV and/or present it in a booth setting.

FACILITY AND PROJECT UPDATES

Fish Protection and Passage Facilities

Fish passage: The fish ladders, screens, and tailrace barriers are running smoothly. The Soda Springs fish screen will be out of service for planned maintenance from February 21 through the end of March, when there is minimal fish movement downstream. During the outage, the plan is to complete the maintenance delayed as a result of the 2021 supply chain issues. The supplies have now all been received. Maintenance will include servicing the submerged components of the de-sedimentation system and upgrades to primary and secondary screen cleaners (hydraulic and control systems), modelled after the ones on the Lewis River project, which have been extremely successful. Rich has high hopes for same results at Soda Springs.

Toketee Dam Rehabilitation

Nothing has changed from the last RCC meeting.

Projects Requiring NTPs or Other Coordination

Project	Status
<i>DOGAMI Permit Application</i>	Awaiting review and Signature
<i>Slide Creek new housing (discussion w/PC & USDA-FS)</i>	Pending

Pam reported that 15 NTP projects were completed last year.

MONITORING PROGRAM & TECHNICAL WORK GROUP UPDATES

Rich provided the following updates:

SA 4.1 Soda Springs Fish Passage O&M

Nothing new from what was reported above.

SA 5 & 6 Flows and Ramping Monitoring

Rich is working with the PacifiCorp hydrologist on the WY2020 Flow and Ramp Monitoring Report, as the data becomes available from the USGS, and hopes to have the report out mid-summer.

SA 8.3 Soda Springs Bypass Reach Habitat Project (update)

Monitoring continues and no maintenance is warranted. There aren't many coho salmon spawning in that area despite large coho numbers downstream of the fish ladder. Chinook salmon and brown trout used the spawning habitat extensively last fall.

Jason expressed surprise about not seeing a lot of Coho up there this year. He isn't sure if it is related to the 2019 high water event. Based on the great number of coho spawners observed in Rock Creek he expects the total passage numbers at Winchester to be relatively great.

SA 19.2 Long-term Monitoring and Predator Control (update, schedule)

On December 15, 2021, the RCC approved the *Proposed 2022 Budget for SA 19-2 Long-Term Monitoring and Predator Control Program*. \$123,000 of the proposed \$139,500 are the estimated expenses for the ODFW Biological Science Assistant and overhead.

Fish sampling is proceeding as scheduled. The ladder video camera is running continuously to document passage of adult fish at Soda Springs Dam. Downstream monitoring is happening two to three days per week; however, a few weeks were missed during a snow storm and then for the holidays. This time of year, movement in both directions is consistently minimal so missing a few sample days has little impact on total counts.

Sam Moyers and Rich are working on the annual report. It should come out in March. They are in the throes of planning for 2022 and are hoping to make a stronger effort on predator removal, with or without the electrofishing boat.

Water Quality Certification Monitoring

Last year's annual report will be out mid-year once they receive the data from USGS for Soda Springs water quality station.

Chris added it's the least impactful time of year for most water quality parameters. He asked whether the Lemolo 1 forebay flushing regime was still occurring even during winter. Rich said yes, the summer regime has been in place experimentally but consistently through fall and winter (thus far)

as it has not seemed problematic and may be beneficial. The regime fluctuates the forebay water level about two feet over the course of a day.

OPERATIONS AND MAINTENANCE UPDATES

Powerhouse/Canal Outages (updates, plans)

Jeff said from now through February 18, 2022 work is happening at the Toketee powerhouse but it is only affecting one of the three units at a time. More work will be performed March 7-9, 2022 that will affect all three units, during which flow to the bypassed reach will increase to natural inflow in the river. An additional outage will occur March 10-25, 2022 for work on one of three turbines.

Reservoir Management (Lemolo, Toketee, Soda Springs)

Rich gave the following updates:

Lemolo Reservoir: The Lemolo Reservoir Management Report was sent to ODFW and USFS in late December 2021, then revised per ODFW comments and distributed in mid-January 2022. We are still operating per normal winter conditions at the low end of the pool.

Toketee Reservoir: As usual for recent years, we are operating at the low end of the pool due to the dam safety hazards and rehabilitation project.

Soda Springs: No changes.

Steve to Pam – The Notice to Proceed (NTP) request season is here. There will be more requests now that PacifiCorp has hired a new maintenance manager.

SA 19.1 TRIBUTARY ENHANCEMENT PROGRAM

Jason reported the hydro crews have been busy since October. It's a critical period for spawning and post-fire effectiveness monitoring. As far as fish numbers, Spring Chinook monitoring is complete in Rock Creek. The 2021 total redd count was 99 redds with 48 carcasses observed. The total redd count was down some from what was documented in 2020 but was still much greater than the 31 redds observed in 2019 which was the last year ODFW sorted hatchery fish out at the Rock Creek ladder prior to fire destroying sorting equipment. In the past, hatchery fish have been sorted and removed at the ladder to be used for brood or donations to tribes. Due to fire impacts and limited staffing at the hatchery, ODFW has not been able to remove hatchery fish at the ladder, and as such, hatchery fish continue to outnumber wild fish observed in spawning ground surveys. The hope is that re-initiation of sorting and continued Rock Creek restoration efforts will lower the number of hatchery fish on the spawning grounds.

The Coho spawning numbers have been pretty incredible with 251 total redds, 191 live and 37 dead fish observed. Those are the highest numbers of total redds and fish observed since counts were initiated (for instance last year we observed around 120 total redds)! Hopefully the strong returns at least in part are due to the restoration efforts (mitigation projects) completed over the past ten years, but it is important to note that in 2021 the sampling crew undertook the most robust Coho Salmon spawning ground survey sampling effort to date in terms of time and area and Coho Salmon returns were for the most part up across the state. High water kept the crew from finishing-up spawning ground surveys, and they are hoping to get out this week to ensure there are no new redds.

Winter steelhead surveys will be starting up soon as well as effectiveness monitoring of the instream structures that may have been damaged in the fires. Monitoring will include the effects of high water events (sediment movement, removal, etc.). A number of high-water events, including the highest post-fire freshet which occurred earlier this month and had a maximum Rock Creek gage height reading of 7.42 feet and associated cfs of 3,580, have given us the opportunity to continue to examine how fire damage impacted the ability of instream structures to withstand higher flows and debris loads and perform as intended with water deflection and substrate capture. For the most part, they continue to hold-up and provide desired effects. Existing boulder structures continue to operate as intended, as are the emergency post-fire log jams that were placed in East Fork Rock Creek to help slow potential large debris flows. Crew have observed some turbidity issues, but so far they haven't noticed any significant landslides or new large deposits of sediment in the stream reaches we have been surveying which will hopefully bode well for egg and juvenile survival in Rock Creek.

Work continues on the effort to replace damaged ODFW water quality monitoring stations. ODFW is in a holding pattern, but there has been an email from staff handling insurance requests asking for locations of damaged stations. This time of year, ODFW is working on restoration projects that will happen in this in-water work season. Hydropower crews will be working on this for the next few months.

SA 19.3 FEDERAL MITIGATION FUND

Pam reported that the Umpqua is going to receive “Fire Recovery/Disaster Supplemental Recovery Funding” from Congress in the amount of \$38 million dollars. The funding will be distributed over 5 years with approximate allocations to include \$7.8M to roads, \$7.1M to trails, \$3M to general recreation improvements, \$1.9M to non-recreation improvements, \$16M to aquatic restoration, and more.

She reminded folks to make sure and get their project reports turned in to the supervisor's office by the end of the month. The USFS is trying to find new opportunities for matching funding for new projects. This year's timeframe for submitting proposals is March/April. She reminded folks that projects can't be something that is otherwise funded by the Settlement Agreement.

For FY2022, funds were received in late October and she is working to distribute those funds to collection agreements, although some of the projects might be on hold.

OTHER RCC AGENCY PROJECTS AND/OR COORDINATION

PacifiCorp and the USDA-FS collaborated to secure an agreement for Douglas County Sheriff's Office to provide a deputy for the Project area and the larger Umpqua National Forest for the next five years. This agreement subsumes the Settlement Agreement requirement to provide law enforcement during the recreation season, specifically for the monitoring of reservoirs.

PUBLIC COMMENTS: *None at this time.*

Break 11:13 AM – 11:20 AM

PUMPED STORAGE CONSULTATION

Steve gave a project update and talked about January 3, 2021 submission of draft application materials and the associated 30-day comments period. Pam asked how Steve would like to receive them. He said tracked changes or on-the-side comments in the margins for Volume I would be preferred. A separate document would be fine too. Basically we'll receive comments however anyone wants to provide them (we are grateful for any RCC comments). At this point, there is no way that outside agencies could be added to PacifiCorp's cloud services for editing a shared document. Three or four steps in and he figured it wasn't worth the effort.

Following receipt of comments, by mid-to late February we will have addressed and/or provided justification on why we couldn't address comments. The License Amendment Application will then be filed with FERC. From there, FERC does not have a defined timeline to receive and notice the application. The process then rolls from there. It may a while for FERC to act on an amendment like this, especially because we're tying in to an existing project.

Comments

Chris said they had received everything. For the benefit of the group, he said ODEQ also received a draft first look at the request for modification of the 401 water quality certification in early December. They are currently looking at both. Regarding the license amendment application, he asked if there was any idea between the lead time of our submittal and FERC's notice? Steve is anticipating about three to six months, but there is no way to know for sure. Chris said this sounded reasonable. Steve said the one thing that gives us a little hope in their schedule being aggressive is that we have been in contact with FERC staff ahead of filling an application. They advised us on the form/format of the application. We were going to have an Exhibit A with just Fish Creek and Toketee, but they informed us it had to be a full exhibit covering the whole project, including both a clean and redlined version from the last time we submitted it. In this case, it was 2013 when we last submitted it for the completion of the Soda Springs fish passage project. Exhibits F and G are living documents and should be updated all the time over the life of the license. We had our engineering groups go through them to make sure everything was accurate going forward. Exhibit A, not E, was the piece that held things up. Hopefully it will not be a surprise to FERC. There is nothing in the regulations that demands a certain schedule for FERC.

Chris said FERC also got a heads up because it was originally submitted as a preliminary permit application. Steve said, regarding the schedule, that FERC had noticed some of the preliminary permit applications he described before in three months.

Steve and Chris have been collaborating outside the RCC to make sure they had ample time to review the proposed modifications to the 401 Certification. OWRD will receive an application for the water right amendment. There is no new water, we're only adding a place of use for the existing water right. There are three components: FERC License Amendment Application, Application for Amendment of Water Right, and the Request for Modification of the 401 Certification.

Jason asked Steve if he could provide a brief timeline for the future. Steve referenced the larger pumped storage project and said that Stage 2 would be Clearwater 2, which would be filed shortly after the Fish Creek pump-only submittal. We would then move on to the Clearwater 2 development which would be more facilities, a new intake downstream of the Clearwater 2 tailrace on Toketee Reservoir. It would be a three-stage-consultation-type amendment. New technology would be a

reversible pump-turbine in addition to expanding the capacity and surface area of Clearwater 2 forebay. Stage 3 would involve changing Fish Creek pump only to a pump-turbine and expanding capacity of the Fish Creek forebay. This was peeled off the first stage, which was the simplest, smallest piece – a conduit only with no new water, no new/expanded impoundments, and new other in-water permitting.

Stage 1 - Fish Creek (pump only)

Stage 2 - Clearwater 2

Stage 3 - Fish Creek pump-turbine and forebay expansion

Pam had some comment but said she was also waiting for other Forest Service folks to comment. She asked about the water coming into the forebay. Was it discharged from the penstock over concrete aprons? The water will be discharged where the penstock intake is. What about the water quality as far as the clay bottom? Would concrete be added? Would there be a reduction of water quality when it comes back out? Steve said that engineering (as well as hydrology) staff have reviewed it. The velocity is such that there won't be disturbance or eroding in front of the penstock intake (and discharge). She asked if it was because it is raised up off bottom? Steve said there is an apron on the trashrack. It's the difference between running a hose on the bottom or running it into a puddle. In the course of pumped storage investigations, PacifiCorp identified significant sedimentation in Fish Creek forebay. Because of this we may need to perform maintenance dredging of the forebay. Impacts of sedimentation are not a surprise and not just at Fish Creek, rather it is the bane of most hydroelectric projects. Scott said the forebay maintenance project may include riprap that goes upstream of the concrete penstock intake apron for approximately 20-25 feet to allow for armoring of the forebay invert.

Pam said she missed the part about the armoring. Steve will review and said it may need to be added to the application materials, but that it is a maintenance project required regardless of pumped storage development.

Pumped storage investigations also initiated dam safety studies of the penstocks and identified some potentially hazardous undermining of penstock footings. This will be addressed as a maintenance project ahead of pumped storage development.

Pam asked that PacifiCorp make sure to add pumped storage facilities to the Emergency Action Plan even though it's not too much different. She said that on page 199 of Volume II, it references her location as Medford but she doesn't work at that location.

An inquiry was made on when comments are due. Steve replied thirty days from January 3, 2022 (February 2, 2002).

Jason asked if there are engineering drawings of conduits drawings. Steve said to check in Volume 3. There is a plan and a profile detailing the conduit running down the road on the Toketee side and spanning the Slide Creek impoundment. Immediately outside the existing Fish Creek power plant fencing will be the pump house. A mostly sub-surface conduit will connect the pumphouse to the existing penstock. There will be more detail over time. The general alignment is correct. The details are still being fleshed out. There will be no vehicle bridges, only maintenance access to walk along the conduit. Scott said there will be no vehicle access and only tied-off points for maintenance. There will be no public access and PacifiCorp is resolute on that part.

Steve said he hopes that a facility-supported bridge would avoid the level of review required for vehicle bridges. The hope, pending FERC approval and USDA-FS notice to proceed, is that these facilities would be constructed in 2023.

Chris had some additional questions around the 401 modification and also regarding the reverse flow duty cycle (i.e., pumping mode) and how it affects the forebay substrate; perhaps an energy dissipation device. Fish Creek is idle for much of the year due to instream flow limitations. There were concerns years ago about macrophyte growth, but pumped storage operation may provide benefits similar to Lemolo forebay flushing. PacifiCorp plans to expand it anyway, and it would include maintenance on the forebay floor. Steve said maintenance dredging and/or forebay invert armoring would be separate from the pumped storage proposal. Before the pumped storage surveys, we didn't know the extent of sedimentation impacts for regular operations let alone for pumped storage. Chris said it would be working as a reverse-cycle pumped storage type project that we all understand on a conceptual level. How will this operation be when there is diversion from Fish Creek and you have that other source of water that is variable? Steve said there will be two different operational regimes. One for high flow and one for low flow. In high flow when we have Fish Creek water for normal operations, conceptually we will retain 5.9 feet of capacity in the forebay for pumped storage operation from 3,020 to 3,025.9 feet (see page 87). The current Fish Creek diversion water right is 150 CFS.

Chris said if you are exercising the full diversion at Fish Creek then the turbine would be operating in continuous mode. Steve replied that is correct that the existing Fish Creek power plant will utilize diverted Fish Creek flows. Chris said this is to supplement during periods when you don't have live flow due to minimum flow requirements. Steve said, yes, but in reality the situation is not binary (full Fish Creek water right versus no Fish Creek water for diversion). There are substantial shoulder seasons on those peaks. Chris added that Fish Creek diversions are limited. The minimum stream flows limit the ability to divert the full water right much of the year.

As far as review, Steve said the bulk of the RCC attention should be focused on Exhibit E, the environmental piece. The exhibits are as follows:

- Exhibit A – Project Description (essentially an engineering document)
- Exhibit B – Project Operation (general concept of pumped storage)
- Exhibit C – Construction History
- Exhibit D – Cost Estimate
- Exhibit E – Environmental Exhibit
- Exhibit F – General Design Drawings
- Exhibit G – Project Maps

Jason was interested in bridge anchor points and span view. Steve said that part is in development but that it is being designed with 500-year flood levels in mind. He then walked through Exhibit E sections.

Pam asked if the system would be going behind a locked gate. Steve said yes, the pumphouse would be gated like Fish Creek currently is. Toketee is also gated.

Chris asked if it deviated from standard elevation fluctuation. Steve said that Toketee would be blind to the pumped storage project. In other words, if the Toketee water wasn't going to Fish Creek forebay, then it would go through the Toketee turbines. When you get to Clearwater, it would be

pumping water out of Toketee Reservoir via a new diversion and up to the Clearwater Forebay and be more noticeable.

Jason asked how this project would affect the current operation. The pumped storage component could change Toketee elevation by a foot. There was a clarifying comment that it wouldn't change ramping. Would there be additional draws at night? Steve said not necessarily, the draws could be at different times of the day depending on power supply and demand. The cited one foot of elevation change is within the current daily operational fluctuation of 3.5 feet, not in addition to that 3.5 feet. This is different from most pumped storage projects in that the source of water is not the receiving water. The receiving water is the Slide Creek impoundment. Toketee is only on the draw; it doesn't go back to Toketee.

Steve asked Jeff to explain how Toketee normally operates as we don't cycle based on demand. Jeff said it's a pretty strict upper elevation because of the current dam safety restrictions. We haven't been fluctuating Toketee Lake much, and we aren't doing any load factoring. In the future, as soon as the dam is rehabilitated, we may fluctuate more to take advantage of the flows. Steve asked if it was oversimplified to say that we run all available/allowable water to Toketee? Jeff said yes, but we are only steam-flowing Toketee. We use it more consistently just not for peak loading.

Steve said if there are any other questions, the RCC may have or if there were any more clarifications needed as they review the Draft License Amendment, to please let him know. He thanked everyone, and said he appreciated everyone's time spent on this project.

NEXT RCC Meeting: April 20, 2022

The meeting adjourned at 12:38 PM.